## Peabody, Daniel (EGLE)

**From:** Peabody, Daniel (EGLE)
**Sent:** Friday, May 6, 2022 10:40 AM
**To:** saric.james@epa.gov
**Cc:** Miller, Megen (AG); Roberts, Keegan (robertsk@cdmsmith.com); Williams, Lisa; Kline, David (EGLE); Walczak, Joseph (EGLE); Trumble, Luke (EGLE); Mills, Mark (DNR); Alexander, Kyle (EGLE); Diana, Matthew (DNR); Wesley, Jay (DNR); Haroldson, Derek (EGLE); Riley, John (EGLE)
**Subject:** EGLE Cover Letter and Detailed Comments_Kalamazoo River Superfund Site_OU5 Area 1 Remedial Reach RA_EPP and RCP
**Attachments:** FINAL_EGLE CvrLttr and Comments_Kalamazoo River Superfund Site OU5 Area1_EPP and RCP.pdf

Jim,

Attached are EGLE's comments on the Round 3 submittals for the subject work plans that were submitted to support the upcoming remedial action for the Remedial Reach. The Round 3 submittals included the Environmental Procedures Plan (EPP) and the Resuspension Control Plan (RCP). Comments on other RA WPs will be submitted under separate cover letters and generally grouped based on the week they were submitted.

Thanks,

**Daniel Peabody**
Environmental Quality Analyst
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
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STATE OF MICHIGAN
DEPARTMENT OF
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GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

May 6, 2022

VIA E-MAIL and U.S. MAIL

Jim Saric
Remedial Project Manager
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3511

Dear Jim Saric:

SUBJECT: Michigan Department of Environment, Great Lakes, and Energy (EGLE) Comments on the Resuspension Control Plan (RCP) dated April 2022, and the Environmental Procedures Plan (EPP), Area 1 of Operable Unit 5 (OU5), Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site (Site).

By way of this correspondence, EGLE formally submits this cover letter and detailed comments (attached) for inclusion in the Administrative Record for the Site. A brief description of the Area 1 remedial action (RA) is included below, and a few over-arching comments are provided thereafter.

The draft subject documents that were submitted provide details to support implementation of the Area 1 RA. Georgia-Pacific and International Paper are respondents (Respondents) to a Unilateral Administrative Order (UAO)(Docket No: V-W- 17-C-002) for remedial design and remedial action (RD/RA) for Area 1 of OU5. The UAO requires implementation of the Area 1 Record of Decision (ROD) (Appendix A) and the procedures and requirements for implementing the work, are outlined in the Statement of Work (SOW) (Appendix B) that is included as an attachment to the UAO. The selected sediment remedy in the Area 1 ROD requires, among other things, excavation of the Crown Vantage Side Channel (CVSC) and select sediment 'hot spots' in a portion of the river referred to as the remedial reach which begins in the city of Kalamazoo near Mayors Riverfront Park and extends approximately three river miles downstream to Parchment.

Following completion of the RD/RA pre-design investigation (PDI) as described in the PDI Evaluation Report Parts 1 & 2, the PDI sampling in 2017 'eliminated' KPT-20 as a 'hot spot' but the PDI sampling identified Verburg Park Pond as a 'hot spot'. At the 30 percent RD phase, the United States Environmental Protection Agency (U.S. EPA) approved a request from the Respondents to splinter the RD/RA for the sediment remedy into three individual components based on location. The RD and RA for the CVSC 'hot spot' was completed in 2020 and 2021, respectively.

The 95 percent Sediment Remedial Design (95RD) – Remedial Reach, which included design details for 'hot spots' KRT-4, KRT-5/FF-19 and SIM-1 was submitted in August 2021, followed by an Addendum that was submitted in October 2021 for Bedform 118 (SED118), which is an additional 'hot spot' located upstream of the Verburg Park Pond outlet that was identified during the RD/RA PDI and added to the scope of the RD/RA by the U.S. EPA during development of the 95RD – Remedial Reach. EGLE provided a cover letter and detailed comments on the 95RD – Remedial Reach and Addendum to the U.S. EPA on October 27, 2021. The Final Sediment Remedial Design (100RD) – Remedial Reach was submitted on December 17, 2021. EGLE provided comments on the 100RD to the U.S. EPA on February 9, 2022, and the U.S. EPA issued an approval of the 100RD and authorization to proceed with RA the same day. The sediment RD for the furthest upstream 'hot spot' in the Remedial Reach, KPT- 19, is not part of this RD/RA. EGLE expects to receive a standalone RD for KPT-19 soon.

The subject documents were submitted per the requirements of Section 4 of the SOW and provide details for sediment 'hot spots' referred to as KRT-4, KRT-5/FF-19, Verburg Park Pond, SED118 and SIM-1, which are in the remedial reach. Similar to the RA work plans and documents that were submitted by the Respondents prior to implementing the RA at the CVSC, an expedited review and comment time is being requested so that the RA can begin at or around June 1, 2022. The two subject work plans were provided on April 15.

EGLE's comments were developed after reviewing the subject documents, presentation slides provided during work groups meetings that were held on March 29, April 11, April 12, April 19, April 22 and April 26, and following a site visit to the proposed staging areas that was held on April 7 and attended by the U.S. EPA and their consultant (Jacobs Engineering), EGLE, the Area 1 Respondents and their respective consultants (Wood Environment & Infrastructure Solutions [Wood], and GeoSyntec Consultants), and the contractor that was selected by the Respondents to implement the RA (Sevenson Environmental Services).

A few over-arching comments on the subject EPP and RCP are included below and detailed comments are included as an attachment.

1. Text in the EPP states, "In the event of foreseen inclement weather, Sevenson will determine what practices should be implemented to mitigate the effect the weather will have on the site and work equipment."

   Due to the low-lying nature of Verburg Park (RSA 1) and the location proposed for the RSA 1 sediment processing area (SPA), EGLE previously submitted comments on other Area 1 Remedial Action Work Plans (RAWPs) requesting that dredging operations stop and staff immediately begin emptying and disposing of contaminated sediments from the RSA 1 SPA if there are forecasts for inclement weather and potential for flood conditions that would inundate the RSA 1 SPA.

Revise text in the Environmental Procedures Plan and other relevant Area 1 RAWPs to clearly state that dredge production will stop, and workers will immediately focus on emptying and disposing of all material in the RSA 1 SPA if there are forecasts for inclement weather and the potential for flood conditions.

2. Given the lack of best management practices (BMPs) implemented during the RA at CVSC, EGLE requested that the Respondents provide a Lessons Learned document and presentation focused on dredging BMPs and issues during the RA at CVSC. No such document or presentation was given by the Respondents following completion of the CVSC RA. EGLE is glad to see that Sevenson has included several dredging BMPs in the RCP that they plan to follow. In addition to the listed dredging BMPs, the following BMPs should be considered:

    a. No side casting or underwater stockpiling should be allowed.

    b. If not already completed, a pre-dredge survey should be conducted to identify potential debris that may interfere with bucket operation.

    c. The bucket should be paused at the water surface to maintain sediment capture.

    d. Bucket descent should be slowed down at least three feet above sediment surface to limit disturbance.

    e. Leveling of the dredge surface by dragging/sweeping the bucket should not be allowed.

    f. Once the bucket is above the water line it can only be opened on the barge.

    g. Dredging should occur from higher to lower elevations to reduce the potential for sloughing.

    h. Multiple bites with the dredge bucket should not be allowed.

3. The RCP proposes using turbidity curtains for containment. Turbidity curtains are most suited for containing contamination associated with particulate matter. Consideration should be given to monitoring dissolved contaminant transport outside turbidity curtains, especially during dredging of material with total polychlorinated biphenyl (PCB) concentrations greater than 50 parts-per-million and subject to special handling and disposal rules under the Toxic Substances Control Act The cost estimates provided in the Area 1 ROD for the sediment remedy were taken from the Area 1 Feasibility Study (FS) – Appendix H and include real-time turbidity monitoring at three locations (one upstream and two downstream) and water column sampling for total suspended solids and PCBs at the three locations weekly.

Given that the cost estimates for the sediment remedy in the Area 1 FS and ROD included turbidity and contaminant monitoring, and considering the volume, depth, and high PCB contamination levels present in areas that are proposed for remediation, a contaminant monitoring plan consistent with the Area 1 FS/ROD must be included in relevant RAWPs.

EGLE appreciates the opportunity to review and comment on the subject Work Plans for Area 1 and looks forward to working with all parties involved on this project. If you have any questions, please contact Mr. Daniel Peabody, Environmental Quality Analyst, Remediation and Redevelopment Division at 517-285-3924; PeabodyD@Michigan.gov; or EGLE, P.O, Box 30426, Lansing, Michigan 48909-7926.

Sincerely,

Daniel Peabody, Environmental Quality Analyst
Superfund Section
Remediation and Redevelopment Division

Attachments

att/cc: Megen Miller, Michigan Department of Attorney General
Dr. Keegan Roberts, CDM Smith
Dr. Lisa Williams, US Fish and Wildlife Service
Matt Diana, MDNR
Jay Wesley, MDNR
Mark Mills, MDNR
Kyle Alexander, EGLE
Derek Haroldson, EGLE
John Riley, EGLE
Luke Trumble, EGLE
David Kline, EGLE
Joseph Walczak, EGLE

**Commenting Organization: EGLE**
**Section: 4.1** **Page #: 2** **Lines #: 2-5**
**Specific Comment #1:** Clarify or expand on the bulled that states "limit the speed of bucket movement in the water column during dredging to minimize disturbance of sediments and resuspension materials". Limit the speed is rather subjective. For example, is there a specific production rate that is targeted for the removal that accounts for a suitable amount of time to not rush each dredge pass? That time should be indicated in the BMP so it can clearly be implemented if the operator starts to rush.

**Commenting Organization: EGLE**
**Section: 4.1** **Page #: 2** **Lines #: 2-5**
**Specific Comment #2:** Optimizing the amount of material in each bucket may over fill each bite, causing excess sediment to slough out. One of the BMPs should be to ensure that each bite allows for sufficient overlying water so that each bite does not over cut or overfill the bucket. Revise the document accordingly.

**Commenting Organization: EGLE**
**Section: 4.1** **Page #: 2** **Lines #: N/A**
**Specific Comment #3:** In addition to the listed dredging BMPs, the following BMPs should be considered:

- No side casting or underwater stockpiling should be allowed.
- If not already completed, a pre-dredge survey should be conducted to identify potential debris that may interfere with bucket operation.
- The bucket should be paused at the water surface to maintain sediment capture.
- Bucket descent should be slowed down at least 3 feet above sediment surface to limit disturbance.
- Leveling of the dredge surface by dragging/sweeping the bucket should not be allowed.
- Once the bucket is above the water line it can only be opened on the barge.
- Dredging should occur from higher to lower elevations to reduce the potential for sloughing.
- Multiple bites with the dredge bucket should not be allowed.

**Commenting Organization: EGLE**
**Section: 5.0** **Page #: 3** **Lines #: N/A**
**Specific Comment #4:** Turbidity curtains are most suited for containing contamination associated with particulate matter. Consideration should be given to monitoring dissolved contaminant transport outside turbidity curtains, especially during dredging of TSCA material. The cost estimates provided in the Area 1 Record of Decision (ROD) for the sediment remedy were taken from the Area 1 Feasibility Study (FS) – Appendix H and include real-time turbidity monitoring at three locations (one upstream and two downstream) and water column sampling for total suspended solids and PCBs at the three locations weekly.

Given that the cost estimates for the sediment remedy in the Area 1 FS and ROD included turbidity and contaminant monitoring, and considering the volume, depth, and high PCB contamination levels present in areas that are proposed for remediation, a contaminant monitoring plan consistent with the Area 1 FS/ROD must be included in relevant Remedial Action Work Plans.

**Commenting Organization: EGLE**
**Section: Attachment 2** **Page #: Figure 1** **Lines #: N/A**
**Specific Comment #5:** Figure 1 provides a legend item for Moon Pool And/or Turbidity curtain. At this point in the design phase, it should be identified where locations are planned for construction without a turbidity curtain. The main text of the document does not indicate where limited resuspension controls would be implemented and EGLE recommends a turbidity curtain to be deployed for all in-river construction work along with the moon pool. Remove the "*/or*" from the legend so the blue hatch is "*Moonpool and Turbidity Curtain*".

**Commenting Organization: EGLE**
**Section: Attachment 2** **Page #: Figure 1** **Lines #: N/A**
**Specific Comment #6:** To be consistent with the document text Section 5.3 the tan hatch should be labeled Riverbank Turbidity Curtain.

**Commenting Organization: EGLE**
**Section: 3.2** **Page #: 2** **Lines #:**
**Specific Comment #1:** This section should indicate threshold levels and outline procedures that will be enacted if water quality thresholds are exceeded.

**Commenting Organization: EGLE**
**Section: 3.2** **Page #: 4** **Lines #: 4-8**
**Specific Comment #2:** As commented on the 100 percent design EGLE recommends that construction be suspended immediately when exceedances of 50 NTUs or the downstream one-hour average is measured to be equal to or greater than 1.5 times the upstream one-hour average turbidity reading until the cause of exceedances is identified and resolved.

**Commenting Organization: EGLE**
**Section: 3.4** **Page #: 4** **Lines #:**
**Specific Comment #3:** This section states "*In the event water quality criteria requirements continue to be exceeded, after additional turbidity control measures have been implemented, Sevenson will temporarily suspend in-water work and implement additional resuspension controls*." This section is a bit vague as to how many time exceedances are recorded before Sevenson will stop work. This section must also indicate what other controls will be implemented. As stated in previous comments, the source of the water quality exceedances should be identified and addressed before work restarts along with implementation of BMPs. EGLE is concerned that this plan is overly reactionary and allows too much ambiguity in determining when work stops and how long Sevenson has before stopping work and implementing BMPs.

**Commenting Organization: EGLE**
**Section: 5.0** **Page #: 6** **Lines #:**
**Specific Comment #4:** This section states "*In the event of foreseen inclement weather, Sevenson will determine what practices should be implemented to mitigate the effect the weather will have on the site and work equipment*." Due to the low-lying nature of Verburg Park (RSA 1) and the location proposed for the RSA 1 sediment processing area (SPA), EGLE previously submitted comments on other Area 1 Remedial Action Work Plans (RAWPs) requesting that dredging operations stop and staff immediately begin emptying contaminated sediments from the RSA 1 SPA if there are forecasts for inclement weather and potential for flood conditions that would inundate the RSA 1 SPA. Revise text in the Environmental Procedures Plan and other relevant Area 1 RAWPs to clearly state that dredge production will stop, and workers will immediately focus on emptying and disposing of all material in the RSA 1 SPA if there are forecasts for inclement weather and the potential for flood conditions.

**Commenting Organization: EGLE**
**Section: 6.0** **Page #: 7** **Lines #: 10-11**
**Specific Comment #5:** This section states "*Non-active stockpiles shown to generate nuisance dust will be covered to minimize nuisance dust."* The practice of waiting for someone to observe PCB contaminated soils causing dust should not be considered a best management approach. Non active stockpiles should be covered at all times unless actively loading or unloading the pile to avoid unnecessary

PCB dust exposure. Part 201, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201), includes generic criteria for hazardous substances (e.g., PCBs) for the soil particulate inhalation pathway (PSIC). Part 55, of the NREPA 1994 PA 451, as amended, establishes rules prohibiting the emission of air contaminants in quantities that cause injurious effects to human health, animal life, plant life of significant economic value, and/or property. For certain remedial alternatives, dust emissions may need to be monitored. Part 201 and Part 55 are included in the Federal and State Chemical-Specific Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considereds (TBCs). If it is anticipated that Site activities will lead to the generation of dust, then the ARARs and TBCs related to nuisance dust and particulates should be reviewed.

**Commenting Organization: EGLE**
**Section: 8.0** **Page #: 7** **Lines #: 2-4**
**Specific Comment #6:** This section states "*Sevenson will cease work operations and notify Respondents' Representative's project oversight if fish are observed to be killed or distressed.*" If fish are observed to be killed or distressed, Michigan Department of Natural Resources and/or EGLE should be notified immediately.

**Commenting Organization: EGLE**
**Section: 9.0** **Page #: 8** **Lines #: N/A**
**Specific Comment #7:** Wood should consider having a professional archaeologist on-site during dredging operations to minimize delays due to suspension of work upon discovery of potential historical, archaeological, and cultural resources.

**Commenting Organization: EGLE**
**Section: Figures** **Page #: Figure 2** **Lines #:**
**Specific Comment #8:** Add callouts to spill plates around the two loadout barges.

**Commenting Organization: EGLE**
**Section: Figures** **Page #: Figure 3** **Lines #:**
**Specific Comment #9:** Clarify where and how loadout of contaminated materials will be conducted. The current diagram depicts a long reach excavator in the backfill area, but the loadout removal area is filled with mixing bins. Provide a plan for loadout operations that involve spill plates/aprons to protect sediments near the RSA.

**Commenting Organization: EGLE**
**Section: Appendix A 2.2** **Page #: A - 4** **Lines #:**
**Specific Comment #10:** The size of the tanks and secondary containment areas should be accurately reflected on the figures in the Environmental Procedures Plan. Add Secondary Containment areas and to scale tanks to figures 1, 2 and 3.